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09/579,626	05/26/2000	Ari Aho	442-009454-US(PAR)	7840
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PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			AMINI, JAVID A	
			ART UNIT	PAPER NUMBER
			2672	
DATE MAILED: 01/31/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/579,626

Applicant(s)

AHO ET AL

Examiner

Javid A. Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 17-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments filed 11/25/2005 have been fully considered but they are not persuasive.

Applicant on page 7 of the remarks argues that the reference Rader fails to teach changing the position of the first part of the display element on the display element at a first set interval and for changing information displayed on the first part of the display element at a second set interval during energy conservation mode.

Examiner's reply: By reviewing again Rader at col. 8, lines 58-64 teaches the output switch 420 can be controlled so as to blank different rows and columns, thus changing the location of the partial display field 305. By changing the blanked columns and rows, the partial display field sourced from the second buffer can be placed in different areas of the display screen. Examiner's note: it's inherent to have two set of intervals one for partial display and the other one is set for full screen or first information display area. Rader in fig. 4 illustrates clearly that the switches 414 and 420 are controlled by state control and timing logic 422. Since Applicant in claim 1 line 15 uses the language "means for" and the function to be performed is changing the position of the first part of the display at set interval. Applicant amends the claim to incorporate two set of intervals. Examiner's interpretation: One set of interval is set for partial screen and the other set of the interval is set for full screen. By referring to the specification on page 6 lines 12-16, Applicant recites sufficient structure, but as an example, see the following paragraph: e.g. by moving the band in leaps by randomly selecting the position of the used band in set intervals or by changing the position in a certain order in certain intervals or alternatively a part of the display element can be switched off first and then the switched-off part can be

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increased until only the certain area A1 is in use etc. Examiner's comment: since the function of phrase "means for" on page 6 of the specification set as examples, which lead to confusion over the intended scope of the claim, and it is not clear whether the specification covers the limitation of the claim invention.

Applicant on page 8 at second paragraph argues that Rader does not teach the feature of changing the position of the first part of the display element on the display element at set intervals during energy conservation mode.

Examiner's reply: Rader in fig. 4 illustrates clearly that the switches 414 and 420 are controlled by state control and timing logic 422. Rader at col. 4, lines 41-46 teaches the input switch 414 can be implemented using any suitable switching element, such as a digital switch employing logic gates, an analog switch using transistor elements, an electromechanical switch, software commands in the core of CPU 312, or the like. Examiner's suggestion: Applicant needs to be more specific regarding the claim invention.

Applicant on page 8 at last paragraph argues that in Rader, information displayed in the partial display mode does not change at all.

Examiner's reply: Rader at col. 7, lines 50-67 teaches the partial display mode provides energy conservation by reducing the power drawn by the display system 300. A pixel off code is scanned over the unused portion of the display to assure that the unused portion remains blank. The size of the partial display area is determined by the size of the FIFO memory 416 and the number of bits used to represent a single pixel element (i.e., the gray scale). Preferably 1 bit pixel words (monochrome) are used in the partial display mode to provide significant memory savings, and because the information displayed will be principally telephone number and text

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information which is well suited to monochrome display. The control of the blanked rows and columns and the insertion of the FIFO memory 416 pixels control the location of the partial display field 305. By controlling the combination of pixel off signals with the contents of the FIFO memory 416 in the partial display mode, the image that is generated can be located in any region of the display. The rows and columns of the remainder of the display are controlled to be off thereby providing a reduction in power consumption.

Applicant on page 9 regarding the last feature of the claim 1 argues similar to the previous argument.

Applicant on page 10 at the bottom of the page argues that the combination of Rader and Stedman does not actually disclose the position of the first part of the display element on the display element at set intervals during energy conservation mode.

Examiner's reply: Rader in fig. 3 illustrates partial display at location 305 and full display at location 303. Stedman at col. 1, lines 25-40 teaches computer systems often have different modes of operation such as a full power mode of operation and a power saving mode of operation. In the full power mode of operation all of the components of the computer system are fully operational. In the power saving mode of operation, power is only provided to certain portions of the computer system such as wakeup circuits while power is not provided to the remainder of the computer system. Generally, the computer system transitions from the power saving mode of operation to the full power mode of operation when certain events occur. The events include for example, when a key on the keyboard is actuated or when the mouse is moved. When one of these events occurs, a signal is sent to the wakeup portion of the computer, which in turn causes the computer system to transition to the full power mode of operation.

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Stedman at col. 2, lines 46-60 teaches the invention relates to a display for use with a computer system. The display has a display power saving mode of operation and a full power mode of operation. The display includes a screen, a wakeup circuit and an on/off switch. The screen provides visually detectable information. The wakeup circuit is coupled to the screen and to the computer system. The wakeup circuit controls whether the display is operating in the display power saving mode of operation or the full power mode of operation. The on/off switch controls whether power is provided to the display. The display provides an on/off switch cycled indication when the on/off switch is cycled. The computer system monitors the on/off switch cycled indication to determine whether the on/off switch is cycled and generates a wakeup signal when power to the display is cycled.

Examiner's suggestion: Encourages Applicant to schedule an interview regarding the significant of the claim invention over the prior arts, e.g. Rader's fig. 3 box 200 i.e. 305 is for partial screen and 303 is dedicated for full screen.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24 and 26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. It is not clear why Applicant uses the term “coincide” in claim 24? The meaning of the term from internet <http://www.answers.com/coincide?gwp=11&ver=1.0.6.171&method=3> is as follows: to happen at the same time or during the same period. Examiner’s comment: in respect to the definition, raised question: How can a partial screen and a full screen with different set of intervals happened at the same time?

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5-7, 9-19, 21-23, 25 and 27 rejected under 35 U.S.C. 102(e) as being anticipated by Rader 5,867,140.

1. Claim 1.

Rader in fig. 1 illustrates the step of “an electronic device, which comprises a display element to display information,” In the following step “wherein said display element has two modes, a full-screen mode use the entire display element to display a first information and a partial screen mode to use a first part of the display element in which partial screen mode second part of the display element is switched off” Rader in the abstract clearly teaches the two modes that an image control circuit (400, 501, see figs. 4-5) controls the operation of the display panel such that only a partial display field, or area, (305, see fig. 3) is controlled to generate images in a first

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operating mode to conserve power and the full display screen area (303, in fig.3) is controlled to generate images in a second operating mode. The following step of the claim claims that “the device comprises: means for switching the device into energy conservation mode by switching the display element to said partial screen mode”. Rader in col. 5, lines 19-26 teaches clearly the significant power savings in the partial display mode. The limitation of “means for controlling the display element during energy conservation mode to display information on said first part” Rader in col. 6, lines 5-14 discloses that pixel scanning is controlled by a pixel scanning controller 424. The pixel-scanning controller 424 converts the pixel information supplied at the output 444 of output switch 420 into a signal for application to the horizontal driver 313 and vertical driver 311. The conversion process includes gray scale interpretation of the pixel signal used to control the duty cycle (on time/off-time) of the coded pixel data. Any conventional pixel-scanning controller can be used to implement pixel-scanning controller 424, such as commercially available LCD controllers or the like. In the partial display-operating mode, Rader in col. 8, lines 58-64 teaches the output switch 420 can be controlled so as to blank different rows and columns, thus changing the location of the partial display field 305. By changing the blanked columns and rows, the partial display field sourced from the second buffer can be placed in different areas of the display screen. See following limitations of the claim “changing means for changing the position of the first part of the display element on the display element at a first set interval and for changing information displayed on the first part of the display element at a second set interval during energy conservation mode”. Examiner’s note: it’s inherent to have two set of intervals one for partial display and the other one is set for full screen or first information display area. Rader in fig. 4 illustrates clearly that the switches 414 and 420 are controlled by



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sate control and timing logic 422. Since Applicant in claim 1 line 15 uses the language “means for” and the function to be performed is changing the position of the first part of the display at set interval. Applicant amends the claim to incorporate two set of intervals. Examiner’s interpretation: One set of interval is set for partial screen and the other set of the interval is set for full screen. By refereeing to the specification on page 6 lines 12-16, Applicant recites sufficient structure, but as an example, see the following paragraph: e.g. by moving the band in leaps by randomly selecting the position of the used band in set intervals or by changing the position in a certain order in certain intervals or alternatively a part of the display element can be switched off first and then the switched-off part can be increased until only the certain area A1 is in use etc. Examiner’s comment: since the function of phrase “means for” on page 6 of the specification set as examples, which lead to confusion over the intended scope of the claim, and it is not clear whether the specification covers the limitation of the claim invention.

2. Claim 2.

The step of “wherein said first part comprises an amount of image particles, and the power consumption of the display element corresponds to the amount of said image particles” The step is inherent because the power usage is proportional to the amount of image data of the display.

3. Claim 5.

“the changing means arranged to change the position of said first part by scrolling the position on the display element”. Rader in col. 3, lines 6-8 discloses that the display image buffer 304 (fig. 3) is easily accessible to the CPU 312 to permit dynamic movement, such as scrolling, of objects, such as icons, and real time plotting.

4. Claim 6.

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“Wherein said first part comprises a certain amount of rows”. The step is inherent because Rader in col. 3, lines 53-63 discloses the horizontal driver controls the voltage input to the rows of pixels on the display panel 200. The vertical driver controls the voltage input to the columns of pixels of the display panel 200.

5. Claim 7.

“wherein said first part comprises a certain amount of columns”. The step is inherent because Rader in col. 3, lines 53-63 discloses the horizontal driver controls the voltage input to the rows of pixels on the display panel 200. The vertical driver controls the voltage input to the columns of pixels of the display panel 200.

6. Claim 9.

“Which device comprises means for ending the energy conserving mode response one the following events: user input, incoming call, an increase in displayed information and a combination of these”. Rader in col. 3, lines 40-42 discloses the CPU 312 also has an internal sensor (not shown) that detects inactivity. If the CPU 312 receives no inputs from the user input 314 and RF circuit 318 for a predetermined period of time, the CPU can enter a sleep mode.

7. Claim 10.

“which device is a mobile station”. Rader in figs. 1-2 illustrates that.

8. Claims 12, 14 and 16.

See rejection of claim 5.

9. Claims 11, 13, 15, 17-18

See rejection of claim 1.

10. Claim 19

See rejection of claim 2.

11. Claims 21-23

See rejections of claim 5 and 9. Rader in col. 3, lines 40-42 discloses the CPU 312 also has an internal sensor (not shown) that detects inactivity. If the CPU 312 receives no inputs from the user input 314 and RF circuit 318 for a predetermined period of time, the CPU can enter a sleep mode.

12. Claims 25 and 27.

It's inherent to have set intervals different from each other.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Rader, and further in view of Stedman et al. hereinafter refers as Stedman.

13. Claim 3.

The step of "wherein the changing means is arranged to change the position of the first part in a certain order in certain intervals" Rader in col. 2, lines 22-31 discloses that the partial display field may be located in any region of the display screen, and it may be moved and/or its size altered, as will be described in greater detail herein below. But Rader does not explicitly specify a screen saver, however, Stedman in col. 5, lines 34-36 teaches a screen saver. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute

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applicant's described structure by modifying the Stedmans' BIOS 42 in fig. 2, that is a microcode software interface between an operating system or application programs and the hardware of system into Rader's fig. 5, number 418 the pixel fill circuit that can be controlled, or "programmed", in order to save the life of pixels.

14. Claim 4.

"wherein the changing means is arranged to randomly change the position of said first part".

That is screen saver. See rejection of claim 3.

15. Claim 20

See rejection of claim 3.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JEFFERY D. BRIER  
PRIMARY EXAMINER

Javid A Amini  
Examiner  
Art Unit 2672

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